Communications I/O Processor Board

for the IWS Workstation: Installation Instructions

Convergent Technologies

COMMUNICATIONS I/O PROCESSOR BOARD FOR THE IWS WORKSTATION: INSTALLATION INSTRUCTIONS

Specifications Subject to Change.

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REFERENCE DOCUMENTS

The following documents have information on the installation and operation of the Communications I/O Processor.

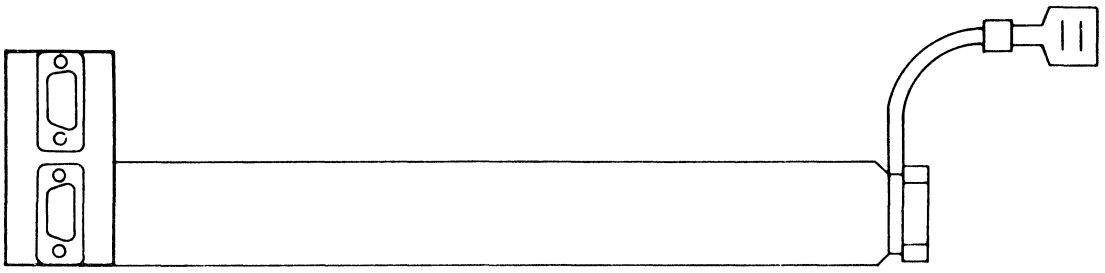
- The Installation Guide describes how to install master and cluster workstations.
- The Release Notice for CommIOP Cluster System describes how to configure cluster workstations in a Communications I/O Processor cluster system.
- The Release Notice for Standard Software describes how to install the Communications I/O Processor software in the master workstation.
- The System Programmer's Guide describes how to run the Communications I/O Processor Diagnostic and how to reconfigure the Operating System.
- The Workstation Hardware Manual describes the theory of operation for the Communications I/O Processor Board.

> NOTE
>
> Start the installation of the Communications I/O Processor Board with the Release Notice for CommIOP Cluster System.

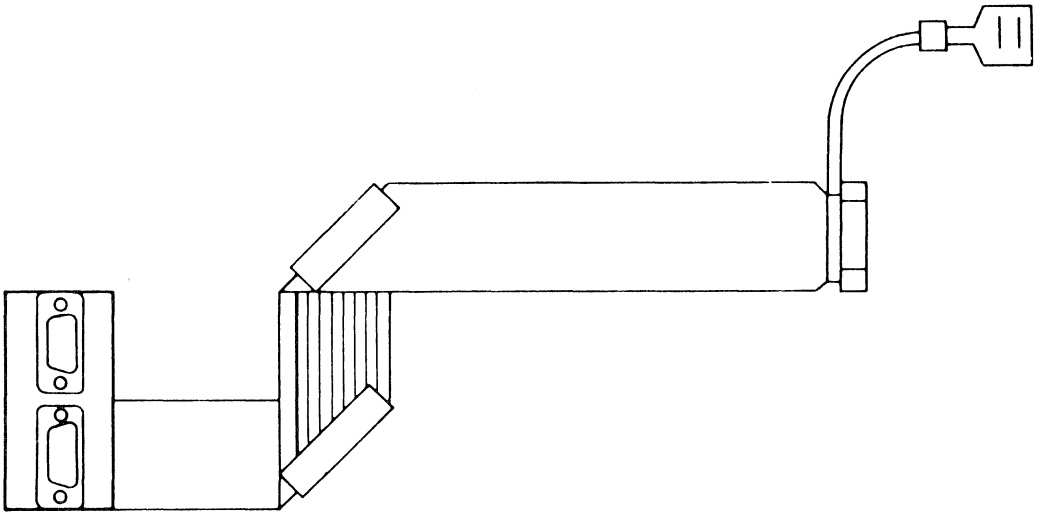
COMPONENTS

The Communications I/O Processor Upgrade Kit (Part No. 99-00020) contains the components listed below. Some of the components are shown on the following pages.

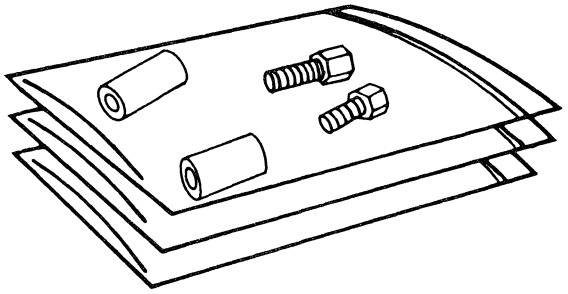
Part No.	Quantity	Item
60-00020-01	1	Straight-Cable Cluster Terminator PCA
60-00020-02	1	Folded-Cable Cluster Terminator PCA
41-00064	6	Jackscrew Kits
42-00006	2	Cable Clamps
83-00063	1	Two-Channel I/O panel
83-00064	1	Four-Channel I/O panel
83-00065	1	Six-Channel I/O panel
71-00047	1	Communications I/O Processor Installation Diskette
09-00069	1	Communications I/O Processor Board for the IWS Workstation: Installation Instructions



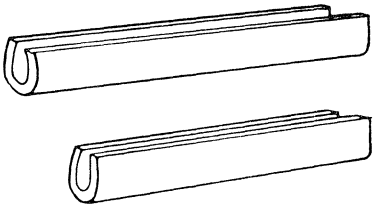
Straight-Cable Cluster Terminator PCA



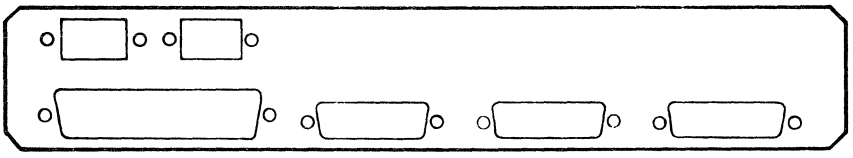
Folded-Cable Cluster Terminator PCA



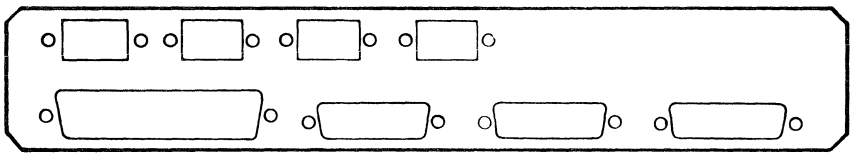
Jackscrew Kits



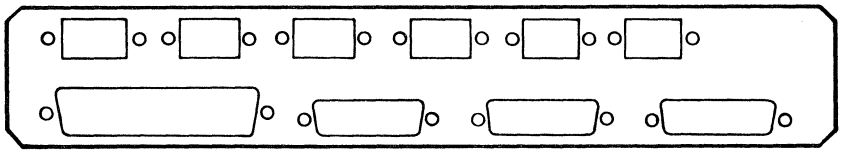
Cable Clamps



Two-Channel I/O Panel



Four-Channel I/O Panel



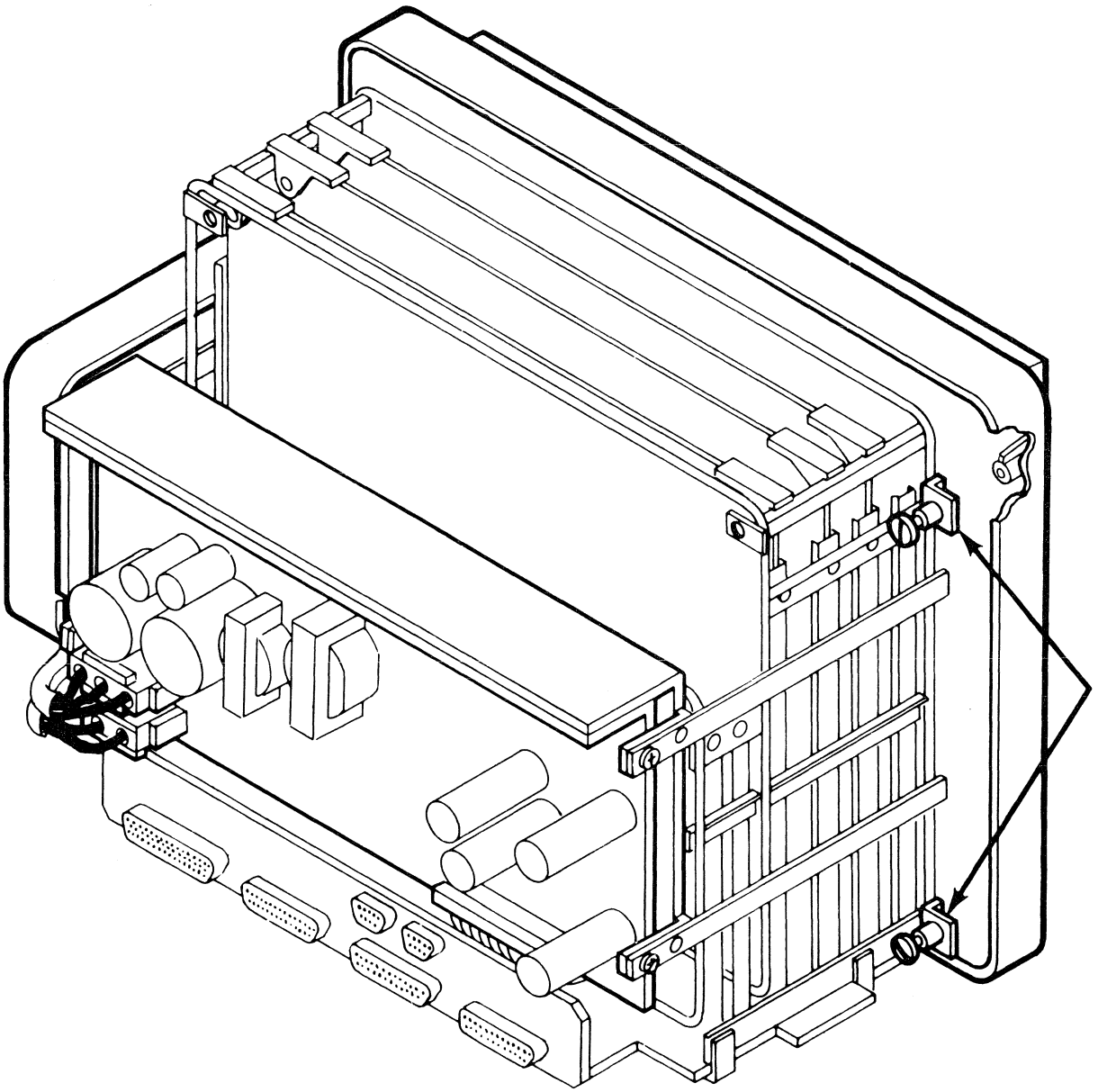
Six-Channel I/O Panel

DISASSEMBLY OF THE IWS WORKSTATION

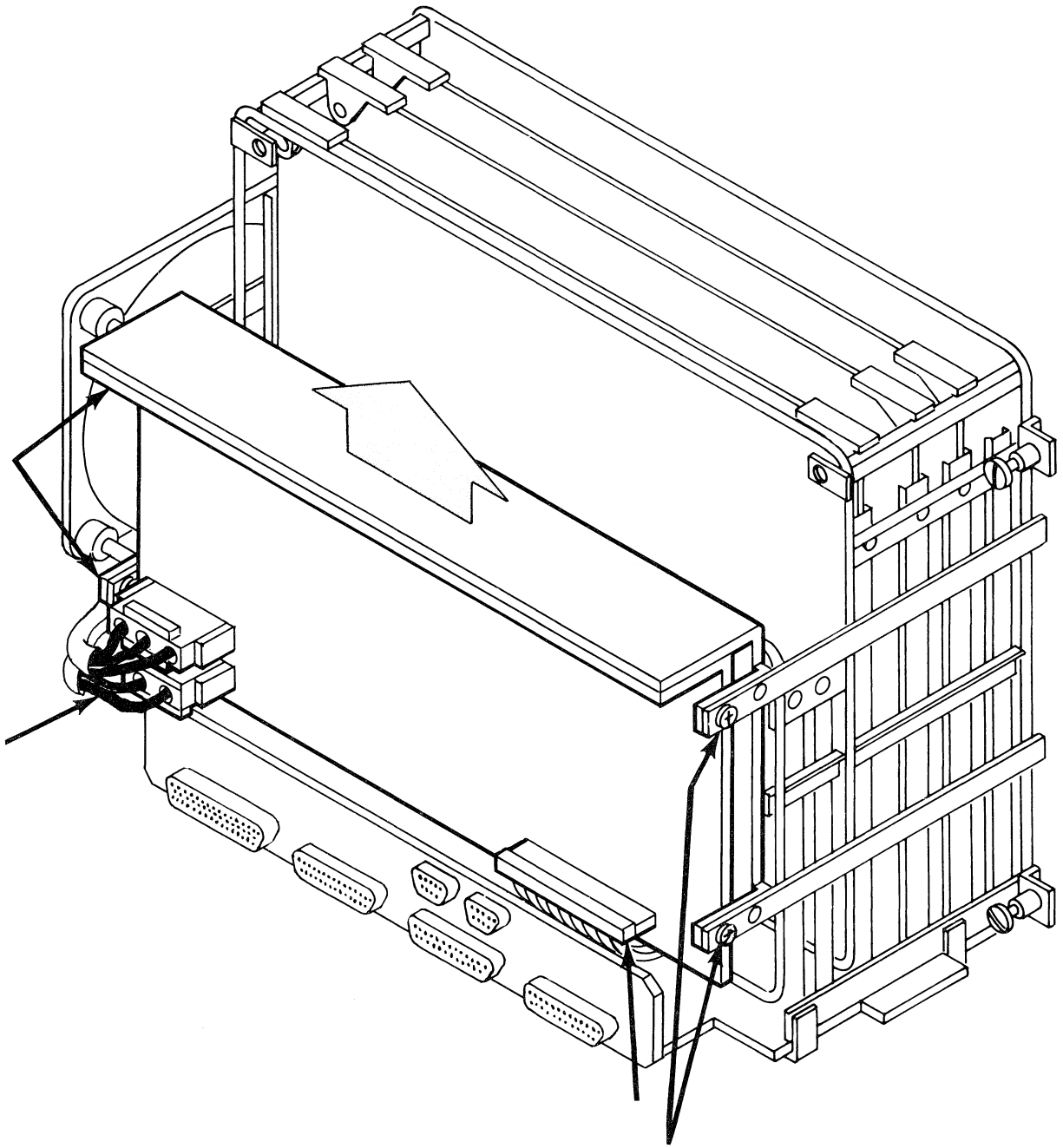
The Communications I/O Processor (CommIOP) Board interconnects to the I/O panel with a ribbon cable terminator assembly. Install the terminator assembly as follows:

1. Remove the lectern bucket on the IWS workstation by turning the four quarter-turn fasteners and pulling the bucket back.

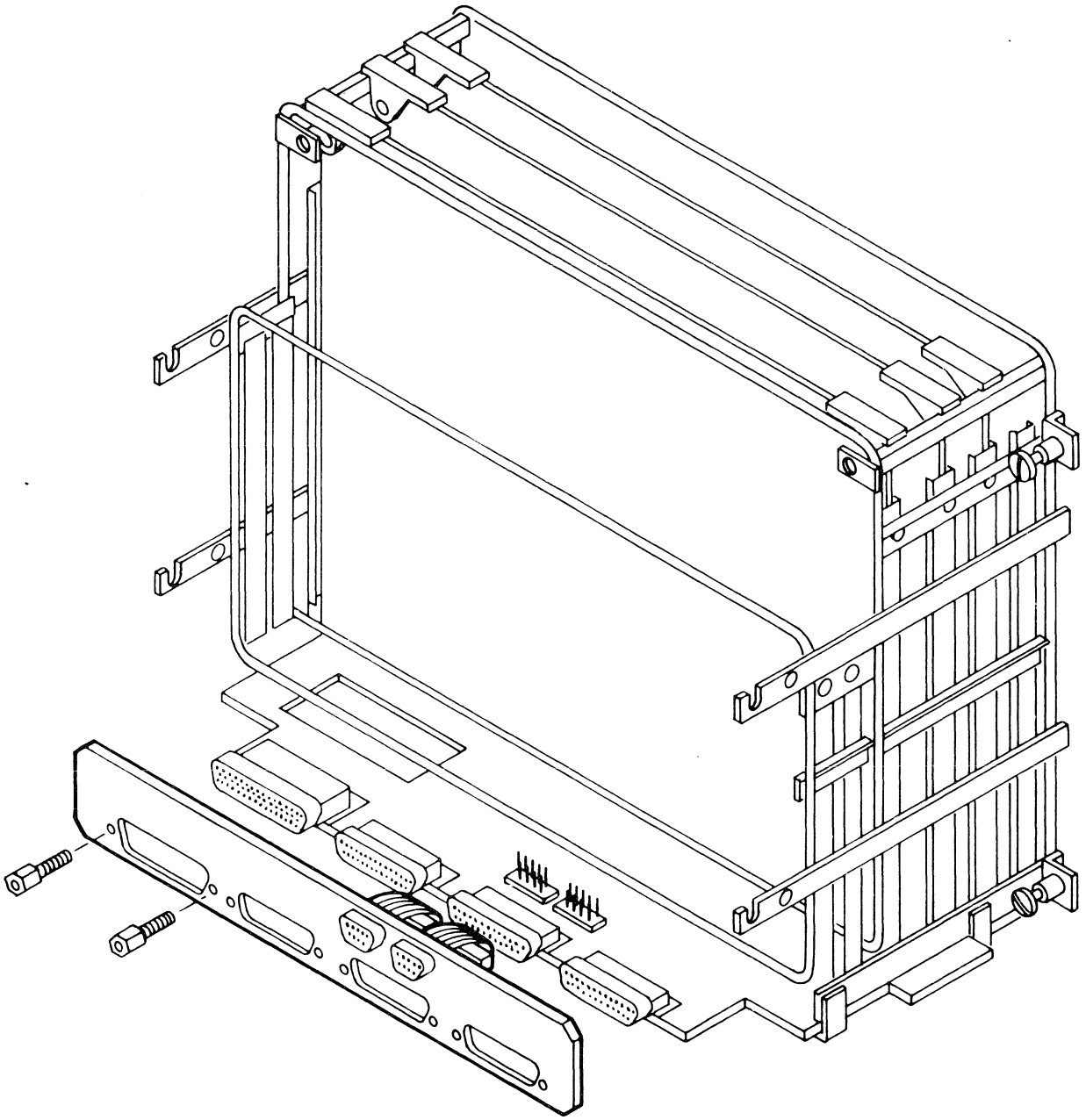
2. Remove the lectern bezel by unscrewing the four captive fasteners.



3. Disconnect the AC, fan, and DC power cables. Remove the power supply by loosening the mounting screws and pulling the power supply up and off.

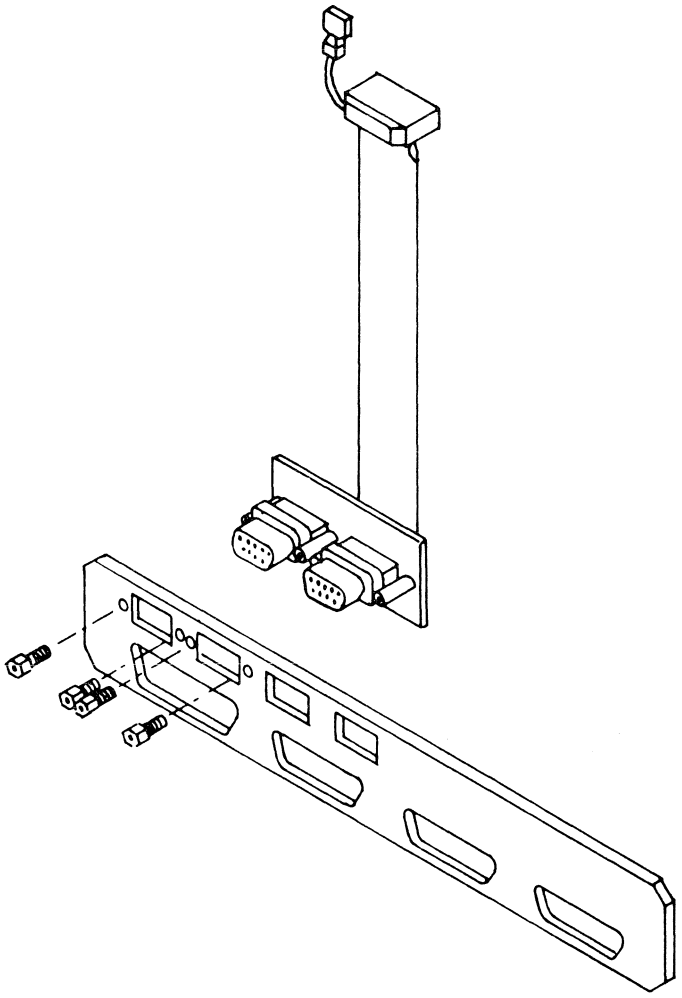


4. Remove the I/O panel by removing the eight jackscrews. Disconnect the cluster communications cables from the motherboard.



CONFIGURING THE COMMIOP BOARD

5. If you are installing a single CommIOP Board, attach the Straight-Cable Cluster Terminator PCA to the two-channel I/O panel using two sets of jackscrews. Be careful not to overtighten them. (The installation of two CommIOP Boards is described below.)



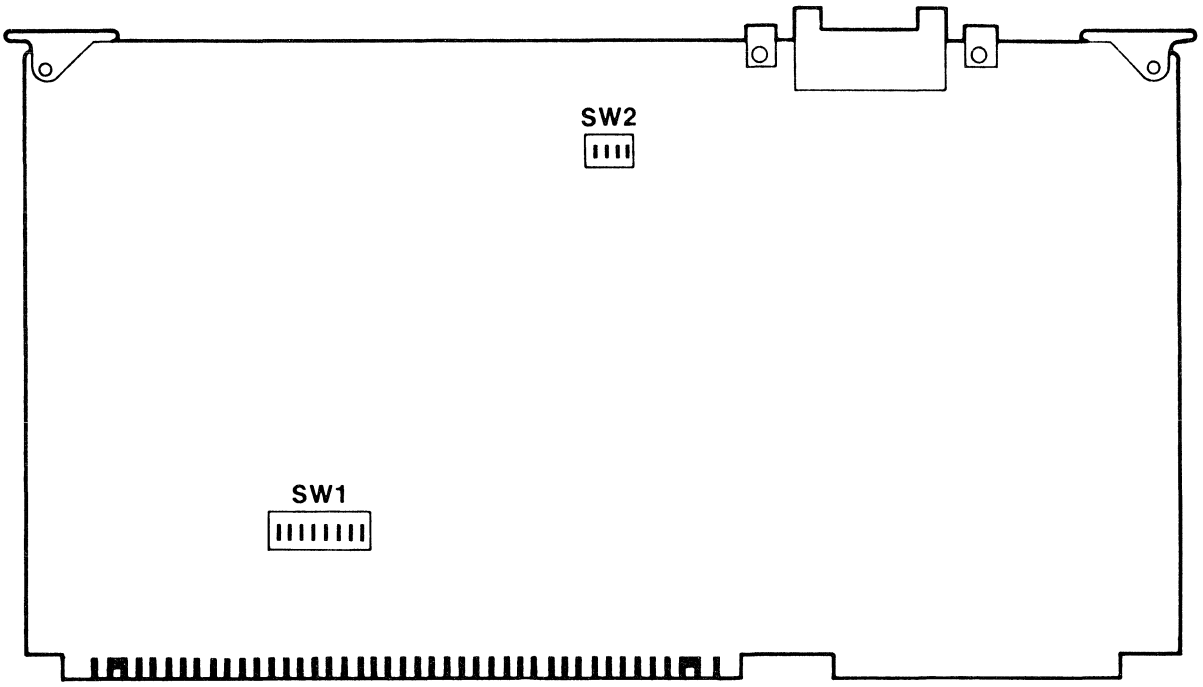
6. If you are installing two CommIOP Boards, attach both Straight- and Folded-Cable Cluster Terminator PCAs to the four-channel I/O panel using four sets of jackscrews. Be careful not to overtighten them. Use the cable clamps to secure the two cables together.

7. Reinstall the new I/O panel assembly. Be careful not to overtighten the jackscrews.

8. Configure the CommIOP Boards as follows:

Switch	Function	CommIOP #1 (Lines 1-2)	CommIOP #2 (Lines 3-4)
SW1	Multibus address	XX40h	XX41h
	Multibus interrupt	Level 2	Level 2
SW2	Internal/External Clock	Internal	Internal

This configuration is done by setting SW1 and SW2 on the CommIOP Boards as shown below. If only a single board is to be installed, use the CommIOP Board #1 settings.

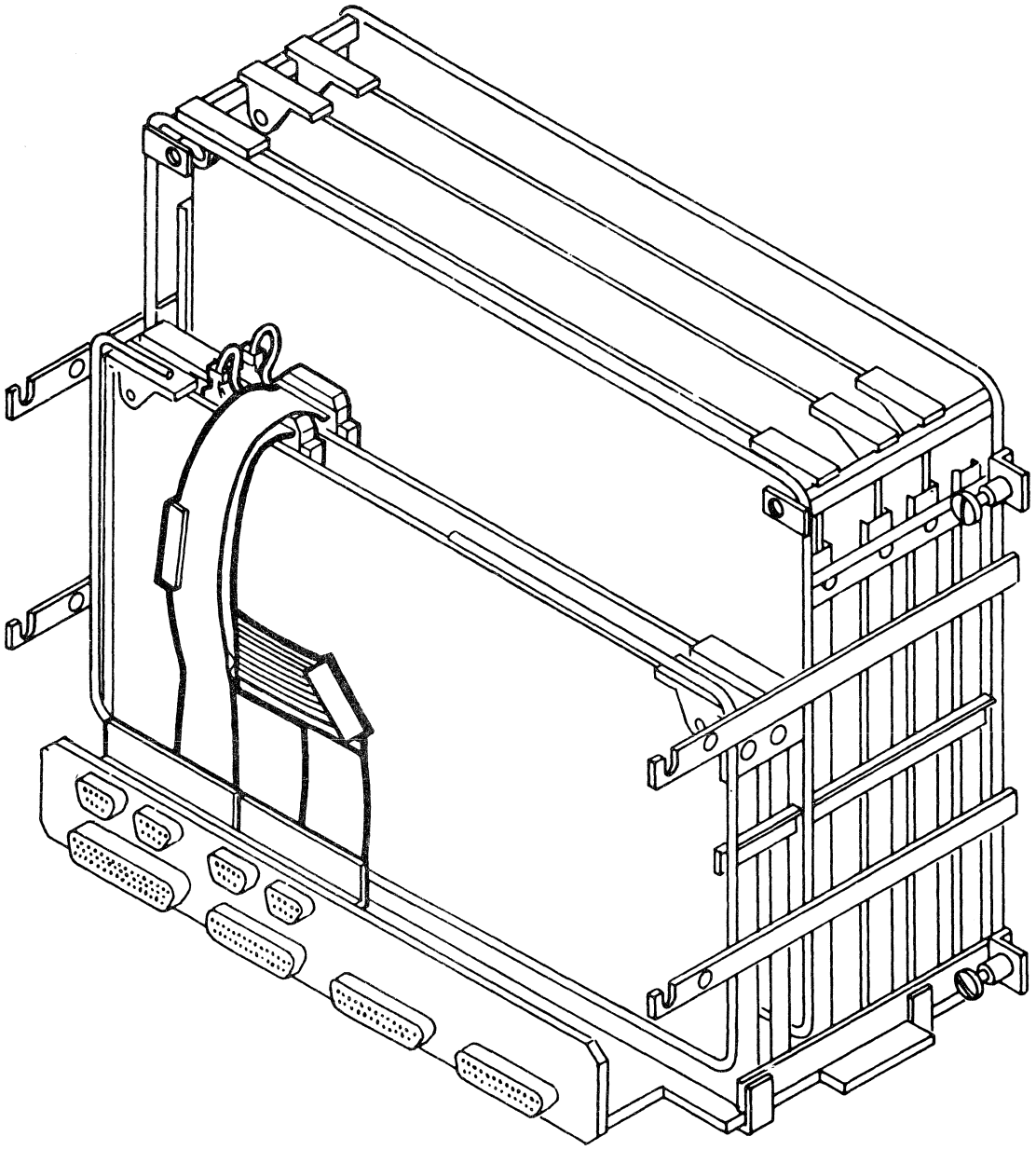


CommIOP Board #1

CommIOP Board #2

9. Install the CommIOP Boards in the Multibus card slots.

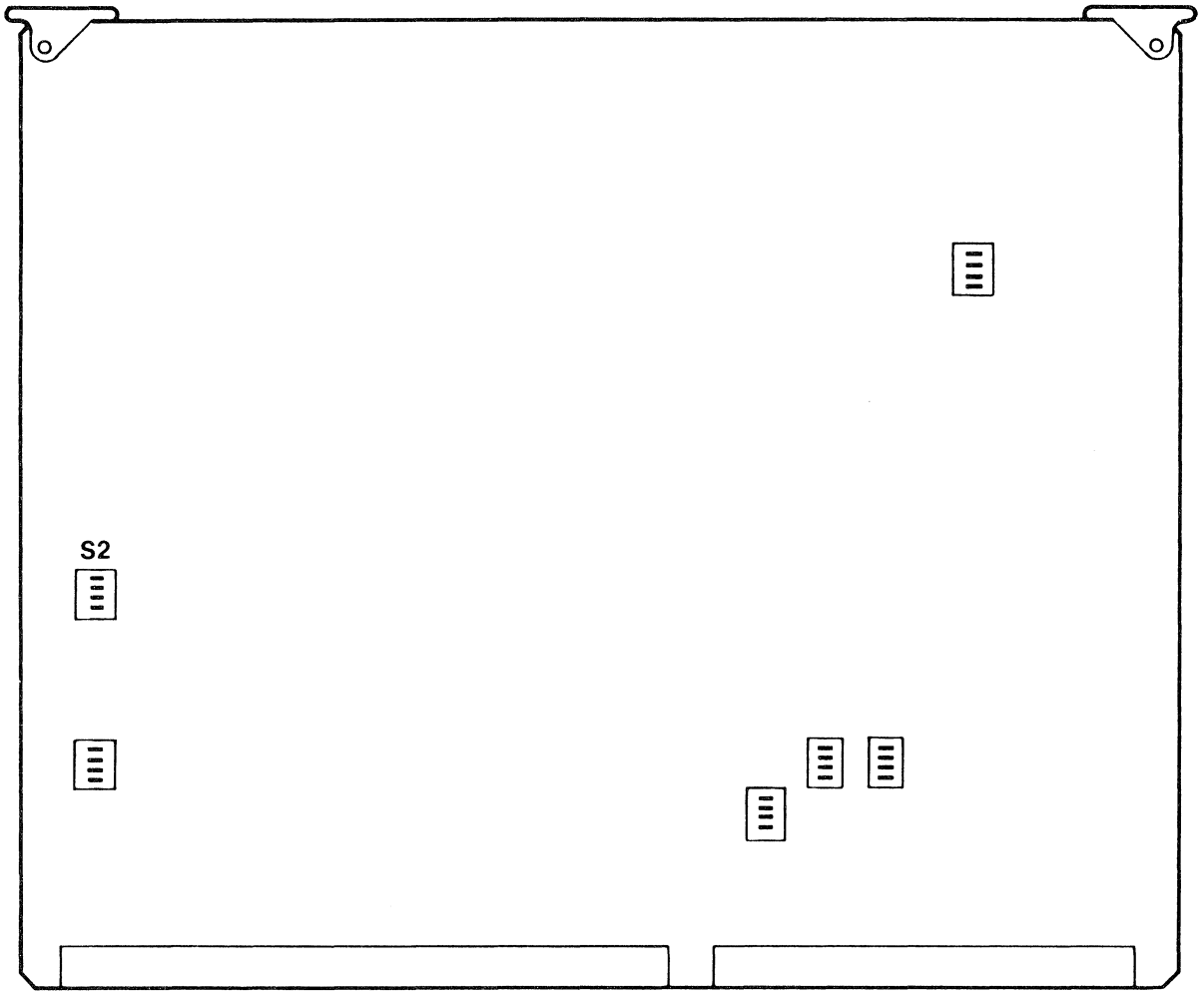
10. Connect the ribbon cable connector from the I/O panel assembly to the CommIOP Board. The ribbon cable must go over the horizontal support member of the card cage. The Straight Cable for lines 1-2 goes to CommIOP Board #1. The Folded Cable for lines 3-4 goes to CommIOP Board #2. Be sure to plug the ground tab from the cable to the CommIOP Board.

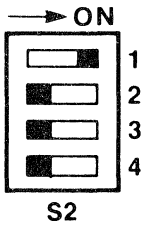


REASSEMBLY OF THE IWS WORKSTATION

11. Replace the power supply and tighten the mounting screws. Connect the AC, fan, and DC power cables. (See the figure at step 3 above.)

12. Remove the CPU Board and configure it for proper Multibus access by setting S2 as shown. This sets Multibus memory addresses from 512-1023K to map into the Convergent window of 0-511K.





13. Replace the CPU Board.

14. Replace the lectern bezel. (See the figure at step 2 above.)

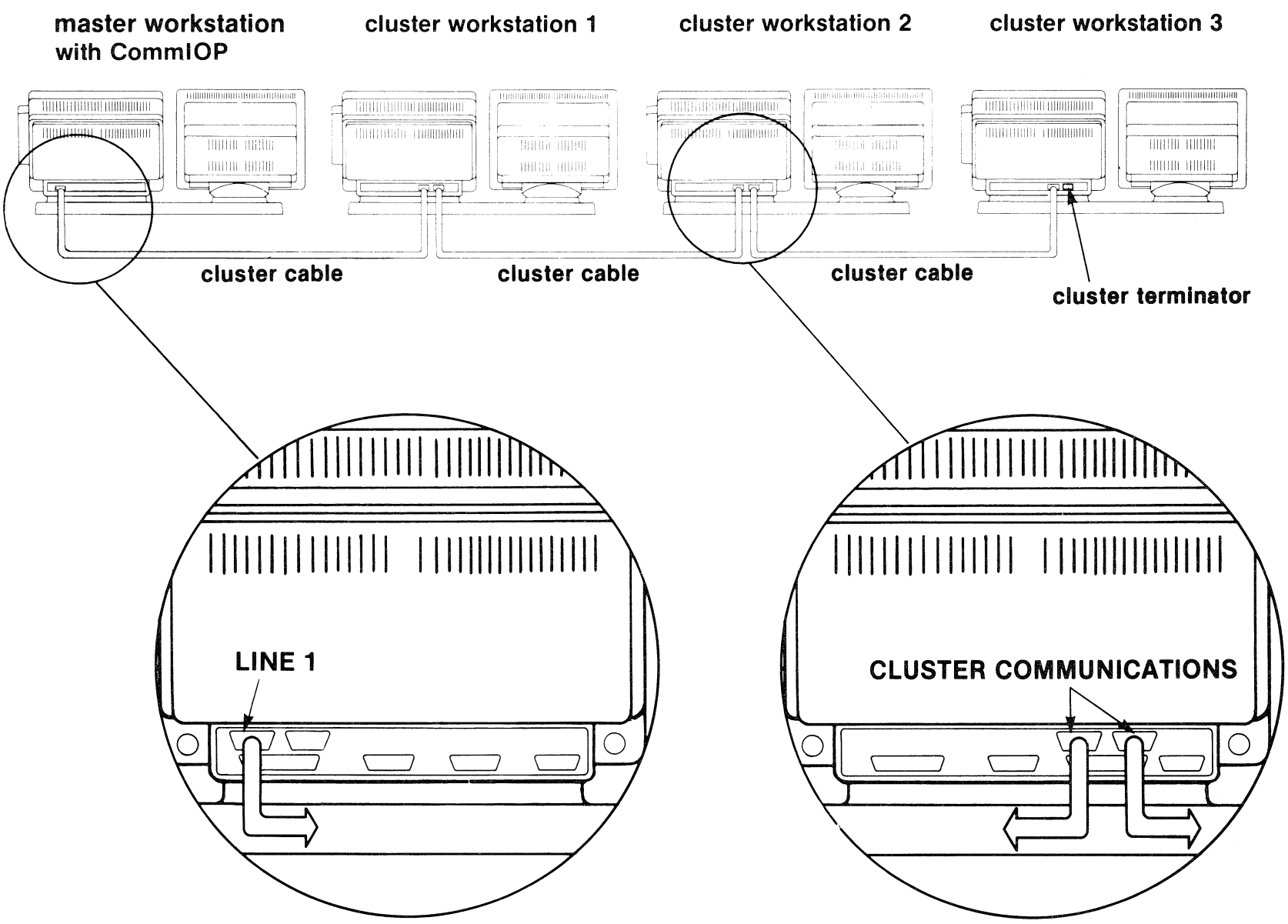
15. Power on the workstation. The LED indicators on the CommIOP Boards should blink on and off. If either LED stays on, recheck steps 8-14 above.

16. If the LEDs are blinking, bootstrap the diagnostic on the Communications I/O Processor Installation Diskette. Connect one Cluster Communications Cable (Part No. 61-00027) between lines 1 and 2 of the I/O panel. Follow the instructions for the CommIOP Diagnostic in the "Diagnostics" section of the System Programmer's Guide.

17. If you have two CommIOP Boards, now install the Cluster Communications Cable between lines 3 and 4 of the I/O panel. Change the CommIOP port address parameter in the Diagnostic to 8041 and run it again.

18. If the diagnostic test passed, disconnect the cables, power off the workstation, and replace the lectern bucket.

19. Connect a cluster workstation to line 1 using a Cluster Communications Cable. Add more cluster workstations in a daisy-chain fashion as required. Four cluster workstations per line is the recommended maximum. Configure additional lines in the same manner.


master workstation
with CommIOP
cluster workstation 1
cluster workstation 2
cluster workstation 3
cluster cable
cluster cable
cluster cable
cluster terminator
LINE 1
CLUSTER COMMUNICATIONS

20. Install a Cluster Communications Terminator (Part No. 61-00029) at the last cluster workstation of each line.

21. Power on the master workstation.

22. Return to the Release Notice for CommIOP Cluster System for further installation instructions.

USER'S COMMENT SHEET

Communications I/O Processor Board
for the IWS Workstation:
Installation Instructions
EC-100 A-09-00069-01-A

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Is this manual written clearly? What is unclear?

Is the format of this manual convenient in arrangement, in size?

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